CALIFORNIA DEPARTMENT OF FOOD & AGRICULTURE



Animal Health & Food Safety Services
Written Respiratory Protection Program

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Written Respiratory Protection Program

Authority:

Title 8 California Code of Regulations Section 5144, Respiratory Protective Equipment (Ref: T8 CCR §5144).

References:

NIOSH Guide to Industrial Respiratory Protection,

Cal/OSHA Guide to Respiratory Protection at Work, and

American National Standards Institute (ANSI) Z88.2-1992

Introduction

This program specifies the standard operating procedures used to act in accordance with Cal/OSHA respiratory protection standard, Title 8 California Code Regulation, Section 5144. The basic purpose of a respirator is to protect the user from inhalation of hazardous atmospheres. When it is determined that a hazardous atmosphere exists, the first line of defense is to eliminate the hazard using engineering (ventilation) or administrative (work place practice) controls. If engineering or administrative controls are infeasible because of technical constraints, then respirators must be used to protect workers. Additionally, respirators must be used when airborne contaminant sources cannot be controlled to a level below their occupational exposure limits (e.g., certain maintenance and repair operations, emergencies, or during periods when ventilation system controls are being implemented).

There are many variables that affect the degree of protection provided by respirators and the misuse of respirators can be hazardous to employee safety and health. Selection of the wrong equipment, one of the most frequent errors made in respiratory protection, can result in the employee being exposed to increased concentrations of the harmful contaminant. Respirators that are not maintained and inspected can be less effective at reducing exposure to harmful contaminants, and can place a greater physical burden on the respiratory system. Respirators that are not clean can cause skin irritation or dermatitis. This program establishes standard operating procedures to ensure that respirators are selected, used, and maintained properly, and the potential hazards associated with misuse are eliminated.

1.0 Policy

It is the policy of California Department of Food and Agriculture (CDFA), Animal Health and Food Safety Services (AHFSS) to provide employees with a safe and healthful environment. The primary objective of this program is to prevent exposure to hazardous atmospheres. This will be accomplished, as far as is feasible, by elimination of those hazards or exposures through engineering and work practice controls. When control measures are not feasible or inadequate, respiratory protective devices may be required to achieve this goal. When employees are required to use respiratory protective devices they will do so in accordance with Cal/OSHA standards and other regulatory guidelines. To

ensure regulatory compliance and safety, any employee using a respiratory protective device shall comply with the provisions of this Respiratory Protection Program.
Each Division within the CDFA will develop and maintain a written respirator program, which is specific to the tasks and hazards at the work place. A list of the types of tasks and hazards covered by each written program will be developed and reviewed at least annually in accordance with Section 15.0, "Program Evaluation."

2.0 Purpose

The potential for employee exposure to respiratory hazards exists during the performance of specific job duties within Animal Health and Food Safety Services. The purpose of this program is to ensure that all employees are protected from exposure to respiratory hazards. Controls such as ventilation and substitution of less toxic materials are the first line of defense. However, these controls are not always feasible for some operations, or they will not always completely control identified hazards. In these situations, respirators and other protective equipment must be used.

3.0 Scope

3.1 The respiratory protection program applies to Animal Health and Food Safety Services employees, who may, in the course of their employment, work in atmospheres potentially hazardous to their health.

3.2 Mandatory use of Respirators

This program applies to all employees who are required to wear respirators during normal work operations and during certain non-routine or emergency operations. The requirement to wear a respirator is determined based on the employee's potential exposure to respiratory hazards.

3.3 Employees participating in the respiratory protection program do so at no cost to them. The expense associated with medical evaluations, training, and respiratory protection equipment will be borne by Animal Health and Food Safety Services.

3.4 Voluntary Respirator user See Section 5.2

4.0 Responsibilities

4.1 Program Administrator

The Program Administrator is responsible for overseeing the respiratory protection program, monitoring the continuing effectiveness of this program, updating the written program, evaluating respiratory hazards, provide program evaluation, maintain records of respirator fit testing/training/medical evaluation, and ensure that all requirements are fully implemented. The designated Program Administrator is the Animal Health and Food Safety Services Director.

4.2 Branch Chiefs

The Branch Chief is responsible for program administration and implementation including supporting managers and supervisors to fully implement the program; responsibilities include:

1. Establishing and maintaining written policy and procedures governing the selection and use of assigned respirators, employee training, medical evaluations, and program evaluation;
2. Either performing or initiating requests for industrial hygiene services to ensure exposure evaluations are conducted;
3. Establishing medical evaluation protocols and contracting with a physician or other licensed health care professional (PLHCP) for worker medical evaluations;
4. Coordinating medical screening procedures with contract physicians and initiating requests for medical approval for potential respirator users and notifying managers supervisors when their employees are due for a medical evaluation;
5. Providing respirators when necessary to protect their employees and carrying out, or supervising the selection of respirators to ensure they are approved, applicable and suitable for the purpose intended;
6. Conducting, or supervising respirator training, fit-testing and assignment;
7. Ensuring that employees required to use respiratory protective equipment have proper training in the use of respiratory equipment;
8. Provide each user proper training and fit-testing prior to assignment and use of respiratory equipment;
9. Periodically inspecting workplace conditions where respiratory protection is required, or optionally worn to determine exposures and/or changing situations;
10. Routinely conducting random inspections to verify that respirators are properly used, cleaned, sanitized and maintained in accordance with the division written program.
11. Conducting annual evaluations of this program to assure full implementation, effectiveness and compliance with published standards;
12. Notifying employees when they are due for a medical evaluation; and
13. Maintaining Program records in accordance with Section 14.0, Recordkeeping.

4.3 Supervisors/Managers

1. Responsible for contacting the respiratory program administrator when an atmospheric hazard is first suspected. This will ensure timely hazard assessment and proper respirator selection;

2. Responsible for ensuring that all respirator users have received medical approval, training, and fit testing as described in this program prior to the use of respiratory protective equipment;

3. Ensure that appropriate respiratory protective equipment is provided to employees and enforce the use of such devices when required; and

4. Conduct periodic inspections of respirators to ensure that devices are kept in good condition and maintained in a sanitary manner.

4.4 Employees

1. Employees are responsible for wearing respiratory protective equipment when in hazardous atmospheres;

2. Inspect their respirator prior to every use to ensure proper working condition;

3. Responsible for the maintenance, cleaning, and storing of the respirators according to the requirements of this program;

4. Only the respirator for which the individual has been fitted shall be worn;

5. Malfunctioning respirators shall be reported immediately to supervisory personnel for repair or replacement;

6. Assigned "Go-Bag" must be maintained (stocked) with approved/fitted respirator and Personal Protective Equipment (PPE) at all times; and

7. Inspect respirator cartridge/filter to ensure expiration dates are current.

5.0 Limitations of Respirator Use

5.1 Respirator use is allowed under the following conditions:

1. Where engineering and/or administrative control of inhalation hazards is not feasible;
2. During the interim while engineering controls are under study or being installed; or,
3. During maintenance, non-routine operations, or emergencies.

5.2 **Exception**: Voluntary Respirator Users - the Branch Chief may approve the use of air-purifying respirators where an employee requests to wear one to provide an additional level of comfort and protection even though it is determined that a hazardous substance does not exceed the limits published by Cal/OSHA or adopted by the ACGIH TLV Committee.

The voluntary use of air-purifying respirators must be approved through the Branch Chief. Voluntary use of all respirator types (except Dust Masks) must comply with all elements of this program, including medical clearances.

5.3 The use of respirators shall comply with the following conditions:

1. Employees can only use respirators provided by Animal Health and Food Safety Services and approved by the National Institute for Occupational Safety and Health (NIOSH).
2. Employees shall not be permitted to wear a respirator without medical approval (Section 10.0) unless covered by the Exception outlined in Section 5.2 .
3. Employees shall not be permitted to wear a respirator without first receiving training in accordance with Section 12.0.
4. Employees shall not be permitted to wear a respirator without being fit-tested in accordance with Section 11.0 of this program to determine that the respirator provides a gas-tight facepiece-to-face seal.
5. Air-purifying respirators will not be worn for protection against airborne gas or vapor contaminants with poor warning properties -- odor or irritation effects not detectable or not persistent at concentrations equal to or less than the respective PEL or TLV, unless the cartridge is equipped with an "End-of-Service Life Indicator (ESLI)".
6. Eyeglasses cannot be worn with tight-fitting full-face respirators. Animal Health and Food Safety Services will provide a spectacle kit for any employee that requires vision correction to perform their work while wearing a full-face respirator.
7. Contact lenses may be worn with any respirator but must be approved by the Branch Chief.
8. Head coverings of any type cannot be worn under respirator straps or facepiece harnesses.

6.0 Respiratory Hazard Evaluation

6.1 The Program Administrator shall be responsible for hazard assessment in any situation where respiratory hazards are suspected. Respirators will be selected on the basis of the hazard(s) to which the employee may be exposed.

6.2 Proper hazard assessment requires knowledge of the job being performed, suspected contaminants, toxicity, airborne concentration, and the potential for oxygen deficiency.

6.3 Employees who believe that respiratory protection is needed during a particular activity should contact their supervisor/manager immediately. This information will be conveyed to the Program Administrator, who will ensure that the potential

hazard is assessed, and the results of the assessment are communicated to the employees.

7.0 Respirator Selection

7.1 The type of respirator shall be determined by the Program Administrator and the Department Representative for each workplace with respiratory hazards.

7.2 All respirators must be certified by the National Institute for Occupational Safety and Health (NIOSH) and shall be used in accordance with the terms of that certification.

7.3 Respirators are selected on the basis of the hazards to which the employees are exposed. Respirator selection shall require consideration of the following:

1. The nature of the hazard.

2. The characteristics of the hazardous operation or process.

3. The location of the hazardous area with respect to an area having safe respirable air.

4. The period of time for which respiratory protection may be provided.

5. The physical characteristics, functional capabilities, and limitations of various types of respirators.

7.4 The Program Administrator will ensure that breathing air for atmosphere-supplying respirators will be of high purity, meets quality levels for content, and does not exceed certain contaminant levels and moisture requirements.

8.0 Respirator Issuance

8.1 Employee must first receive written medical authorization to use respiratory equipment. A copy of this authorization must be given to the respiratory program administrator.

8.2 Respirators are issued by the Animal Health and Food Safety Services after the employee(s) are designated to participate in the program or when proper size has been identified.

8.3 The employee must complete the medical evaluation, respirator training, and fit testing prior to any use of respiratory equipment.

9.0 Cartridge and Canister Warning System

9.1 The useful service life of a cartridge or canister is defined by how long it provides employees with adequate protection from harmful chemicals in the air. The service

life of a cartridge depends on many factors, including environmental conditions (e.g., high humidity), breathing rate, cartridge capacity, the amount of contaminant in the air, and how many hours the cartridge is used each day.

9.2 For air-purifying respirators that protect against gases and vapors, a system must be in effect that will reliably warn respirator wearers of contaminant breakthrough. These systems include an end-of-service-life indicator (ESLI) or an established and enforced cartridge or canister change schedule.

9.3 If the cartridge/filter is soiled or breathing resistance is noticeable; change the cartridge/filter immediately.

9.4 The Branch Chief will establish a cartridge or canister change schedule. This schedule will be administered in accordance to the manufacturer's specification.

10.0 Physical Examination and Medical Surveillance

10.1 The wearing of a respirator imposes additional physical and psychological stress on employees. Therefore, a medical evaluation will be performed by a physician or other licensed health care professional (PLHCP). A medical evaluation will be performed to establish if an employee can safely and effectively wear an assigned respirator. The evaluation will be conducted prior to respirator fit testing and training.

10.2 The medical evaluations may be performed annually or more frequently if the employee exhibits or reports any symptoms or conditions that would affect the use of respirators. In addition, some Cal/OSHA regulations for specific substances also contain requirements for medical examinations. Questions regarding regulations for specific substances (e.g., lead, arsenic, asbestos, etc.), including occupational carcinogens regulated by Cal/OSHA (Ref: T8 CCR Article 110, Regulated Carcinogens) should be directed to the Program Administrator.

10.3 The PLHCP will determine what health and physical conditions are pertinent and the frequency of reevaluating the medical status of respirator users.

10.4 The PLHCP will provide a written medical clearance to the Branch Chief and the employee. The PLHCP may also request additional medical tests prior to issuance of, or denial of a clearance. The Branch Chief will coordinate these additional medical evaluations.

The clearance provided by the PLHCP will classify the worker as:

1. Approved respirator use - no restrictions;

2. Approved respirator use - specific use restrictions; or

3. Not approved - no respirator use under any circumstances.

10.5 OSHA Respirator Medical Evaluation Questionnaire

Branch Chiefs will provide each potential respirator user with a medical evaluation questionnaire furnished by the PLHCP. If the provider does not amend the Mandatory OSHA Respirator Medical Evaluation Questionnaire, then employees will be provided a copy of Appendix C (T8 CCR §5144). The "mandatory" medical evaluation questionnaire will be reviewed and updated at the time of each medical fitness determination.

10.6 Confidentiality of medical records will be maintained by the PLHCP. To assure medical confidentiality, each employee provided with a medical evaluation questionnaire will deliver to the PLHCP or their staff.

Note: Employees will NOT return completed questionnaires to their supervisor, Branch Chief, or Program Administrator.

10.7 Medical Evaluation Questionnaire

See Appendix C: *Medical Evaluation Questionnaire*

10.8 Employees have an opportunity to discuss the questionnaire and medical examination with the PLHCP.

10.9 Supplemental Information to Medical Providers

In addition the Medical Evaluation Questionnaire, the Branch Chief or employee's supervisor will provide any changes in job assignment including duration and frequency of work tasks requiring respirator use, expected work effort, and additional protective clothing and equipment to the PLHCP.

10.10 Medical Examination

A physician or other licensed health care professional (PLHCP) shall review the medical evaluation questionnaire submitted by each potential respirator user and the Supplemental Information provided by the Branch Chief and determine what, if any, physical examination is necessary. The physical examination is at the discretion of the PLHCP, and may include but is not limited to pulmonary function tests, electrocardiogram, and chest X-rays.

10.11 Routine Annual Examinations

Medical reviews will be performed annually by a PLHCP to determine the continued medical fitness of individuals using respiratory protection. In addition, the results of periodic examinations will be compared with those from previous periodic exams to determine whether respirators being used are adequate. Special evaluations will be performed after prolonged absences from work for medical reasons or whenever a functional disability has been identified

10.12 Additional medical evaluation or medical re-evaluation for any employee when:

1. The employee reports medical signs or symptoms that are related to the employee's ability to use a respirator.

2. The PLHCP, supervisor, Branch Chief or Program Administrator observes that the employee is having a medical problem during fit testing or workplace respirator use.

3. Information from the respiratory protection program, including observations made during fit testing and program evaluation, indicates a need for employee re-evaluation.

4. A change occurs in workplace conditions (e.g., physical work effort, type of respirator used, protective clothing, and temperature) that may result in a substantial increase in the physiological burden placed on an employee.

5. The content of such additional medical evaluations will be determined by the PLHCP.

10.13 Exception to Medical Approval Requirement – Filtering Facepiece-Type Respirators (Dust Masks)

CDFA Branch Chiefs may allow the use of disposable [single-use] filtering facepiece (dust masks) for protection against low [less than the applicable PEL or TLV; i.e., non-hazardous] airborne concentrations of non-toxic particulates. Filtering facepiece (dust masks) may only be used when a hazard assessment indicates that airborne concentrations of particulates are below the respective PEL or TLV.

Use of disposable filtering facepiece (dust masks) under these restrictions does not require medical clearance or fit testing. However, training in the proper of use of the filtering facepiece must be provided; each affected employee must be provided a copy of Appendix F.

11.0 Fit Testing

11.1 To obtain adequate respiratory protection, a proper match must exist between the respirator and the wearer. Respirators that do not seal properly around an employee’s face offer only the illusion of protection. To accommodate different face sizes, many manufacturers offer facepieces in several sizes and models.

11.2 The primary purpose of fit testing is to identify the specific make, model, style, and size of the respirator that is best suited for each employee. In addition, fit testing both provides an opportunity to check for problems with respirator use and reinforces respirator training by giving employees an opportunity to review the proper methods for putting on and wearing the respirator.

11.3 During any type of fit-testing, the respirator straps must be properly located and as comfortable as possible. Over-tightening the straps will sometimes reduce face piece leakage, but the wearer may be unable to tolerate the respirator during the work period. The facepiece should not press into the face and shut off blood circulation or cause major discomfort. At the time of respirator issuance, a visual inspection of the fit should always be made by a second person. That person should check to see that there are no visible openings/leaks (around the nose, for example) and that the respirator appears properly adjusted and comfortable.

11.4 Fit testing is required:

1. For all employees who are required to wear respirators with a tight-fitting facepiece.

2. After an employee has completed their medical evaluation and prior to being allowed to wear any respirator with a tight fitting facepiece in the work environment.

3. Whenever a different respirator is used.

4. At least annually.

5. When there are changes in the employee's physical condition that could affect respiratory fit (e.g., obvious change in body weight, facial scarring, etc.).

11.5 Employees will be provided with several sizes of respirators so that they may find the optimal fit.

11.6 A qualitative fit test is a pass/fail test that is used to assess the adequacy of a respirator's fit by relying on a person's response to a test agent.

11.7 A quantitative fit test assesses the adequacy of a respirator's fit by numerically measuring the amount of leakage into the respirator.

11.8 Visual Impairment

1. Contact lenses may be permitted while wearing a respirator equipped with a full-facepiece, helmet, hood, or suit; prior approval by the Branch Chief is required.

2. Prescription eye glasses with temple bars shall not be used while wearing a full-facepiece respirator.

3. Special corrective lenses which are made to be mounted inside a full-facepiece respirator shall be used by a person who needs corrective lenses (request a spectacle kit from the Branch Chief).

11.9 Facial hair prevents a proper face-to-facepiece seal. A respirator shall not be worn if facial hair comes between the sealing periphery of the facepiece or if the facial hair interferes with the valve function.

1. Employees must be clean-shaven – mustaches must be trimmed so that hair does not interfere with the sealing surface of the respirator or the inhalation and exhalation valves.

12.0 Training and Information

12.1 All Animal Health and Food Safety Services employees who participate in the Respiratory Protection Program shall receive initial and annual training in the requirements of this program.

12.2 Training shall include the following elements:

1. Why respirators are necessary and how improper fit, usage, or maintenance can compromise the protective effect of the respirators.

2. The limitations and capabilities of the respiratory equipment.

3. The selection, fitting, and proper use and care of their respiratory protective equipment.

4. How to inspect, put on and remove, use, and check the seals of respirators.

5. The purpose of and procedures for respirator fit testing.

6. The purpose of and procedures for the medical evaluation.

12.3 See Appendix A: *Use of Respirators*

13.0 Maintenance and Care of Respirators

13.1 Sanitation

Respirators will be periodically washed with mild soap in warm water or in a sanitary solution recommended by the manufacturer. After washing, they will be rinsed in clean water, drained, and allowed to air dry in a clean place. Also, see Appendix B: *Respirator Cleaning Procedures*

13.2 Inspection

All respirators shall be inspected routinely before and after each use.

13.3 Storage

Respirators can be permanently damaged if they are not stored properly. They will be stored in a location separate from the work environment, away from sunlight, dust, moisture, extreme temperatures, and damaging chemicals.

13.4 Repairs

Only NIOSH-approved manufacturer's replacement parts designed for that respirator will be used. Repairs will be made in accordance with the manufacturer's recommendations and specifications regarding the type and extent of repairs to be performed. If a respirator cannot be repaired or adjusted it will be discarded. Notify your supervisor/manager if repairs are needed.

14.0 Record Keeping

14.1 Access to Employee Exposure and Medical Records required by this section must be retained and made available in accordance with *T8 CCR*, Section 3204.

14.2 Documentation of employee's exposure shall be maintained by the Branch Chief and Human Resources Branch (Appendix H: Hazardous/Toxic Substance Exposure Record SO-35).

14.3 The Branch Chief shall maintain documentation of employee's respiratory fit testing. The Fit Test Record shall include the following:

1. Name and job classification of employee.

2. Examiner's name and date of respiratory fit testing.

3. The NIOSH approval respirator.

4. Testing media or equipment used.

14.4 Record Retention

1. The Human Resources shall maintain Hazardous/Toxic Substance Exposure Record SO-35.

2. The Branch Chief shall maintain employee medical approval document, respirator training, and respiratory fit testing results for duration of employee's employment and comply with *T8 CCR*, Section 3204.

14.5 All records shall be provided to employees upon request.

15.0 Program Evaluation

15.1 The Program Administrator is responsible for conducting annual evaluations of Branch or Section workplaces. The annual program evaluation is required to ensure that the provisions of the respiratory protection program are being

implemented for all employees using respirators. More frequent evaluations may be conducted to ensure the continued effectiveness of the program. Evaluations of the workplace will determine whether the correct respirators are being used and worn properly and will also serve to determine whether the training program is effective. The purpose of the annual audit is to ensure:

1. Program policies and procedures are consistent with current accepted standards and regulations; and
2. The programs implemented reflect the written policy and procedures.

15.2 Area supervisors/managers are responsible to periodically monitor employee use of respirators to ensure that they are being used and worn properly. Supervisors/managers will regularly consult with employees wearing respirators to ascertain the employees' views on program effectiveness and to identify any problems so that corrective action can be taken.

15.3 Audit findings will be documented on the Respiratory Protection Program Evaluation Checklist (see Appendix I). The audit documentation will be signed by the Branch Chief and the Program Administrator and include planned corrections and dates for completion. The following factors will be evaluated to determine program effectiveness:

1. Program administration;
2. Industrial hygiene monitoring and classification of hazard;
3. Respirators are correctly selected for the hazards encountered;
4. Medical evaluation;
5. Qualitative or Quantitative fit-test (respirators are properly fitted);
6. Employee use - employees are able to wear respirators without interfering with effective workplace performance;
7. Respirator cleaning, maintenance and inspection;
8. Respirators are being maintained and stored properly;
9. Employee training;
10. Recordkeeping; and
11. Special problems.

15.4 The Program Administrator will be responsible to correct any problems associated with wearing a respirator that are identified by employees or that are revealed during any other part of this evaluation.

Appendix A
Use of Respirators

Once the respirator has been properly selected and fit tested, it is necessary to ensure that the respirator is used properly in the workplace. You should be aware of the following situations that can compromise the effective use of respirators and jeopardize workers' protection:

1. The person wearing the respirator fails to properly perform seal checks.
2. The person wearing the respirator is also using personal protective equipment or other equipment that interferes with the face-to-facepiece seal.
3. The respirator is not properly repaired, and its defective parts are not replaced.
4. Modifications are made to the respirator, or non-approved replacement parts are used.

In these circumstances, employees may have a false sense of security in feeling that they are protected when they are not.

Each time an employee uses a tight-fitting respirator, employees must perform a positive-pressure and/or a negative-pressure seal check by using the procedures provided in *T8 CCR*, Section 5144, Appendix B-1, *User Seal Check Procedures (Mandatory)* or equally effective manufacturer's procedures.

Face-to-Facepiece Seal
Employees who have facial hair or any condition that interferes with the face-to-facepiece seal or valve function must not use tight-fitting respirators.

Positive Pressure Test
It is conducted by closing off/covering the exhalation valve and exhaling gently into the facepiece. The respirator fit is considered okay if slight positive pressure can be built up inside the facepiece without any evidence of outward leakage around the face piece. For some respirators, this test requires that the wearer remove the exhalation valve cover. This removal often disturbs the respirator fit if not done before the respirator is put on. The test is easy for respirators whose valve cover has a single small port that can be closed by the palm or a finger.

Negative Pressure Test
This test is very similar in principle to the positive pressure test. For this test, the user closes off the inlet of the cartridges or filters by covering with the palms so it does not allow air to pass; inhales gently so the facepiece collapses slightly; and holds his/her breath for about 10 seconds. For some cartridges, users with small hands must use a secondary block - a latex or nitrile glove often works well.

If the facepiece remains slightly collapsed and no inward leakage is detected, the respirator probably fits tightly enough. This test of course, can only be used on respirators with tight-fitting facepieces. It also has potential drawbacks, such as the hand pressure modifying the facepiece seal and causing false results.

Emergency Use of Respirators
Respirators may only be used for emergency response if the exposure level to chemicals of concern can be established as less than IDLH and verified to be within the particular air purifying

respirator's protective capacity. Entry into unknown levels of chemical contamination may only be performed by qualified personnel, contract the Program Administrator. Staff will make the request for assistance and then isolate and deny entry into the area until the level of hazard can be identified.

Appendix B
Respirator Cleaning Procedures

These procedures are provided for employer use when cleaning respirators. They are general in nature, and the employer as an alternative may use the cleaning recommendations provided by the manufacturer of the respirators used by their employees, provided such procedures are as effective as those listed here in Appendix B.

Equivalent effectiveness simply means that the procedures used must accomplish the objectives set forth in Appendix B, i.e., must ensure that the respirator is properly cleaned and disinfected in a manner that prevents damage to the respirator and does not cause harm to the user.

I. Procedures for Cleaning Respirators.

1. Remove filters, cartridges, or canisters. Disassemble facepieces by removing speaking diaphragms, demand and pressure-demand valve assemblies, hoses, or any components recommended by the manufacturer. Discard or repair any defective parts.

2. Wash components in warm (43 deg. C [110 deg. F] maximum) water with a mild detergent or with a cleaner recommended by the manufacturer. A stiff bristle (not wire) brush may be used to facilitate the removal of dirt.

3. Rinse components thoroughly in clean, warm (43 deg. C [110 deg. F] maximum), preferably running water. Drain.

4. When the cleaner used does not contain a disinfecting agent, respirator components should be immersed for two minutes in one of the following:
   a. Hypochlorite solution (50 ppm of chlorine) made by adding approximately one milliliter of laundry bleach to one liter of water at 43 deg. C (110 deg. F); or,
   b. Aqueous solution of iodine (50 ppm iodine) made by adding approximately 0.8 milliliters of tincture of iodine (6-8 grams ammonium and/or potassium iodide/100 cc of 45% alcohol) to one liter of water at 43 deg. C (110 deg. F); or,
   c. Other commercially available cleansers of equivalent disinfectant quality when used as directed, if their use is recommended or approved by the respirator manufacturer.

5. Rinse components thoroughly in clean, warm (43 deg. C [110 deg. F] maximum), preferably running water. Drain. The importance of thorough rinsing cannot be overemphasized. Detergents or disinfectants that dry on facepieces may result in dermatitis. In addition, some disinfectants may cause deterioration of rubber or corrosion of metal parts if not completely removed.

6. Components should be hand-dried with a clean lint-free cloth or air-dried.

7. Reassemble facepiece, replacing filters, cartridges, and canisters where necessary.

8. Test the respirator to ensure that all components work properly.

Appendix C
Medical Evaluation Questionnaire

To the employer: Answers to questions in Section 1, and to question 9 in Section 2 of Part A, do not require a medical examination.

To the employee:
Can you read (circle): Yes/No

Your employer must allow you to answer the questionnaire during normal working hours, or at a time and place that is convenient to you. To maintain your confidentiality, your employer or supervisor must not look at or review your answers, and your employer must tell you how to deliver or send this questionnaire to the health care professional who will review it.

Part A. Section 1. (Mandatory) The following information must be provided by every employee who has been selected to use any type of respirator (please print).

1. Today's date:

2. Your name:

3. Your age (to nearest year:

4. Gender: Male/Female

5. Your height: ft. in.

6. Your weight: lbs

7. Your job title:

8. A phone number where you can be reached by the health care professional who reviews this questionnaire (include the Area Code):

9. The best time to phone you at this number:

10. Has your employer told you how to contact the health care professional who will review this questionnaire (circle one): Yes/No

11. Check the type of respirator you will use (you can check more than one category):
    a. ___ N, R, or P disposable respirator (filter-mask, non-cartridge type only).
    b. ___ Other type (for example, half- or full-facepiece type, powered-air purifying, supplied-air, self-contained breathing apparatus).
    c. Have you worn a respirator (circle one): Yes/No
    d. If "yes," what type(s):

Part A. Section 2. (Mandatory) Questions 1 through 9 below must be answered by every employee who has been selected to use any type of respirator (please circle “yes” or “no”).

1. Do you currently smoke tobacco, or have you smoked tobacco in the last month: Yes/No.

2. Have you ever had any of the following conditions?
   a. Seizures (fits): Yes/No
   b. Diabetes (sugar disease): Yes/No
   c. Allergic reactions that interfere with your breathing: Yes/No
   d. Claustrophobia (fear of closed-in places): Yes/No
   e. Trouble smelling odors: Yes/No

3. Have you ever had any of the following pulmonary or lung problems?
   a. Asbestosis: Yes/No
   b. Asthma: Yes/No
   c. Chronic bronchitis: Yes/No
   d. Emphysema: Yes/No
   e. Pneumonia: Yes/No
   f. Tuberculosis: Yes/No
   g. Silicosis: Yes/No
   h. Pneumothorax (collapsed lung): Yes/No
   i. Lung cancer: Yes/No
   j. Broken ribs: Yes/No
   k. Any chest injuries or surgeries: Yes/No
   l. Any other lung problem that you've been told about: Yes/No

4. Do you currently have any of the following symptoms of pulmonary or lung illness?
   a. Shortness of breath: Yes/No
   b. Shortness of breath when walking fast on level ground or walking up a slight hill or incline: Yes/No
   c. Shortness of breath when walking with other people at an ordinary pace on level ground: Yes/No
   d. Have to stop for breath when walking at your own pace on level ground: Yes/No
   e. Shortness of breath when washing or dressing yourself: Yes/No
   f. Shortness of breath that interferes with your job: Yes/No
   g. Coughing that produces phlegm (thick sputum): Yes/No
   h. Coughing that wakes you early in the morning: Yes/No
   i. Coughing that occurs mostly when you are lying down: Yes/No
   j. Coughing up blood in the last month: Yes/No
   k. Wheezing: Yes/No
   l. Wheezing that interferes with your job: Yes/No
   m. Chest pain when you breathe deeply: Yes/No
   n. Any other symptoms that you think may be related to lung problems: Yes/No

5. Have you ever had any of the following cardiovascular or heart problems?
   a. Heart attack: Yes/No
   b. Stroke: Yes/No
   c. Angina: Yes/No

d. Heart failure: Yes/No
e. Swelling in your legs or feet (not caused by walking): Yes/No
f. Heart arrhythmia (heart beating irregularly): Yes/No
g. High blood pressure: Yes/No
h. Any other heart problem that you've been told about: Yes/No

6. Have you ever had any of the following cardiovascular or heart symptoms?
   a. Frequent pain or tightness in your chest: Yes/No
   b. Pain or tightness in your chest during physical activity: Yes/No
   c. Pain or tightness in your chest that interferes with your job: Yes/No
   d. In the past two years, have you noticed your heart skipping or missing a beat: Yes/No
   e. Heartburn or indigestion that is not related to eating: Yes/No
   f. Any other symptoms that you think may be related to heart or circulation problems: Yes/No

7. Do you currently take medication for any of the following problems?
   a. Breathing or lung problems: Yes/No
   b. Heart trouble: Yes/No
   c. Blood pressure: Yes/No
   d. Seizures (fits): Yes/No

8. If you have ever used a respirator, have you ever had any of the following problems? (If you have never used a respirator, check the following space and go to question 9:)
   a. Eye irritation: Yes/No
   b. Skin allergies or rashes: Yes/No
   c. Anxiety: Yes/No
   d. General weakness or fatigue: Yes/No
   e. Any other problem that interferes with your use of a respirator: Yes/No

9 Would you like to talk to the health care professional who will review this questionnaire about your answers to this questionnaire: Yes/No

Questions 10 to 15 below must be answered by every employee who has been selected to use either a full-facepiece respirator or a self-contained breathing apparatus (SCBA). For employees who have been selected to use other types of respirators, answering these questions is voluntary.

10. Have you ever lost vision in either eye (temporarily or permanently): Yes/No

11. Do you currently have any of the following vision problems?
   a. Wear contact lenses: Yes/No
   b. Wear glasses: Yes/No
   c. Color blind: Yes/No
   d. Any other eye or vision problem: Yes/No

12. Have you ever had an injury to your ears, including a broken ear drum: Yes/No

13. Do you currently have any of the following hearing problems?

a. Difficulty hearing: Yes/No
b. Wear a hearing aid: Yes/No
c. Any other hearing or ear problem: Yes/No

14. Have you ever had a back injury: Yes/No

15. Do you currently have any of the following musculoskeletal problems?
    a. Weakness in any of your arms, hands, legs, or feet: Yes/No
    b. Back pain: Yes/No
    c. Difficulty fully moving your arms and legs: Yes/No
    d. Pain and stiffness when you lean forward or backward at the waist: Yes/No
    e. Difficulty fully moving your head up or down: Yes/No
    f. Difficulty fully moving your head side to side: Yes/No
    g. Difficulty bending at your knees: Yes/No
    h. Difficulty squatting to the ground: Yes/No
    i. Climbing a flight of stairs or a ladder carrying more than 25 lbs: Yes/No
    j. Any other muscle or skeletal problem that interferes with using a respirator: Yes/No

Part B. Any of the following questions, and other questions not listed, may be added to the questionnaire at the discretion of the health care professional who will review the questionnaire.

1. In your present job, are you working at high altitudes (over 5,000 feet) or in a place that has lower than normal amounts of oxygen: Yes/No

   If "yes," do you have feelings of dizziness, shortness of breath, pounding in your chest, or other symptoms when you're working under these conditions: Yes/No

2. At work or at home, have you ever been exposed to hazardous solvents, hazardous airborne chemicals (e.g., gases, fumes, or dust), or have you come into skin contact with hazardous chemicals: Yes/No

   If "yes," name the chemicals if you know them:

3. Have you ever worked with any of the materials, or under any of the conditions, listed below:
    a. Asbestos: Yes/No
    b. Silica (e.g., in sandblasting): Yes/No
    c. Tungsten/cobalt (e.g., grinding or welding this material): Yes/No
    d. Beryllium: Yes/No
    e. Aluminum: Yes/No
    f. Coal (for example, mining): Yes/No
    g. Iron: Yes/No
    h. Tin: Yes/No
    i. Dusty environments: Yes/No
    j. Any other hazardous exposures: Yes/No

   If "yes," describe these exposures:

4. List any second jobs or side businesses you have:

5. List your previous occupations:

6. List your current and previous hobbies:

7. Have you been in the military services? Yes/No

   If "yes," were you exposed to biological or chemical agents (either in training or combat): Yes/No

8. Have you ever worked on a HAZMAT team? Yes/No

9. Other than medications for breathing and lung problems, heart trouble, blood pressure, and seizures mentioned earlier in this questionnaire, are you taking any other medications for any reason (including over-the-counter medications): Yes/No

   If "yes," name the medications if you know them:

10. Will you be using any of the following items with your respirator(s)?
    a. HEPA Filters: Yes/No
    b. Canisters (for example, gas masks): Yes/No
    c. Cartridges: Yes/No

11. How often are you expected to use the respirator(s) (circle "yes" or "no" for all answers that apply to you)?:
    a. Escape only (no rescue): Yes/No
    b. Emergency rescue only: Yes/No
    c. Less than 5 hours per week: Yes/No
    d. Less than 2 hours per day: Yes/No
    e. 2 to 4 hours per day: Yes/No
    f. Over 4 hours per day: Yes/No

12. During the period you are using the respirator(s), is your work effort:

    a. Light (less than 200 kcal per hour): Yes/No

    If "yes," how long does this period last during the average shift: ___ hrs. ____ mins.

    Examples of a light work effort are sitting while writing, typing, drafting, or performing light assembly work; or standing while operating a drill press (1-3 lbs.) or controlling machines.

    b. Moderate (200 to 350 kcal per hour): Yes/No

    If "yes," how long does this period last during the average shift: ____ hrs. ____ mins.

Examples of moderate work effort are sitting while nailing or filing; driving a truck or bus in urban traffic; standing while drilling, nailing, performing assembly work, or transferring a moderate load (about 35 lbs.) at trunk level; walking on a level surface about 2 mph or down a 5-degree grade about 3 mph; or pushing a wheelbarrow with a heavy load (about 100 lbs.) on a level surface.

c. Heavy (above 350 kcal per hour): Yes/No

If "yes," how long does this period last during the average shift: ____ hrs. ____ mins.

Examples of heavy work are lifting a heavy load (about 50 lbs.) from the floor to your waist or shoulder; working on a loading dock; shoveling; standing while bricklaying or chipping castings; walking up an 8- degree grade about 2 mph; climbing stairs with a heavy load (about 50 lbs.).

13. Will you be wearing protective clothing and/or equipment (other than the respirator) when you're using the respirator: Yes/No

If "yes," describe this protective clothing and/or equipment:

14. Will you be working under hot conditions (temperature exceeding 77 deg. F): Yes/No

15. Will you be working under humid conditions: Yes/No

16. Describe the work you'll be doing while you're using your respirator(s):

17. Describe any special or hazardous conditions you might encounter when you're using your respirator(s) (for example, confined spaces, life-threatening gases):

18. Provide the following information, if you know it, for each toxic substance that you'll be exposed to when you're using your respirator(s):

Name of first toxic substance:
Estimated maximum exposure level per shift:
Duration of exposure per shift:

Name of second toxic substance:
Estimated maximum exposure level per shift:
Duration of exposure per shift:

Name of third toxic substance:
Estimated maximum exposure level per shift:
Duration of exposure per shift:

The name of any other toxic substances that you'll be exposed to while using your respirator:

19. Describe any special responsibilities you'll have while using your respirator(s) that may affect the safety and well-being of others (for example, rescue, and security):

Appendix D
Definitions

Air-Purifying Respirator

A respirator which cleans contaminants from the air via cartridges and/or filters before the air is inspired by the wearer. These are the most commonly used respirators and are available in half-mask, full-face or powered units.

Approved Respirators

Tested and listed as satisfactory, by the National Institute for Occupational Safety and Health (NIOSH). or jointly, by the Mine Safety and Health Administration (MSHA). 42 CFR 84 adopted in July 1995 gives NIOSH primary responsibility for certifying most respirators.

Canister (Air-Purifying)

A container filled with sorbents and catalysts that removes gases, vapors, and/or particulates from air drawn through the unit. Canisters rely on a variety of mechanisms for contaminant removal such as chemical absorption, adsorption, catalytic action, neutralization, and mechanical filtration.

Cartridge

A container filled with sorbents and catalysts that removes gases, vapors, and/or particulates from air drawn through the unit. Cartridges are smaller than canisters but are designed to work on the same principles.

Confined Space

An enclosure such as a storage tank, boiler, sewer, underground utility vault, tunnel or pit that is difficult to enter or exit and may contain atmospheric or physical hazards.

Contaminant

An irritating or potentially harmful material (gas, vapor, or particulate) which is foreign to the normal atmosphere.

Exhalation Valve

A device that allows exhaled air to leave a respiratory device and prevents outside air from entering through the valve.

Face piece

The portion of a respirator that covers the wearer's nose and mouth (a full-face piece also covers the eyes). The face piece should make a gas-tight or dust-tight seal with the face. The face piece is supported by headbands, and contains inhalation valves, exhalation valves and connectors for the air-purifying cartridges or filters.

Filter

A fibrous medium used in respirators to remove solid or liquid particulates from the air before it enters the face piece (this term may be used interchangeably with cartridge).

Fume

Airborne particulate formed by the evaporation of solid material e.g. metal fume emitted during welding.

High-Efficiency Particulate Air (HEPA) Filter

A filter designed to remove 99.97% of particulates which are 0.3 microns in diameter. HEPA filters are often referred to as absolute filters and are used to remove toxic respirable sized particles from contaminated air.

IDLH Atmosphere

An atmosphere Immediately Dangerous to Life or Health. An IDLH atmosphere poses an immediate hazard to life, such as being oxygen deficient (containing less than 19.5% oxygen), or one which produces an irreversible debilitating effect on health.

Inhalation Valve

A device that allows air to enter the facepiece through the filtering media but prevents exhaled air from leaving the facepiece through the intake openings.

Mine Safety and Health Administration (MSHA)

Federal Agency that tests, approves and certifies respiratory protection equipment used in mine and mining operations.

National Institute for Occupational Safety and Health (NIOSH)

A Federal agency that tests, approves, and certifies respiratory protection equipment.

Particulate Matter

A suspension of fine solid or liquid particles in air, i.e. dust, fog, fume, smoke or sprays. Particulate matter suspended in air is commonly known as an aerosol.

Particulate Filter Series N - P - R

Effective July 1995 new performance criteria were established for particulate respirators. The new criteria eliminates classification of particulate filters according to hazard such as "dust mist fume" and provides for three levels of filter efficiency (95%, 99%, 99.97%).These efficiencies are available in a series of filter types known as N, R, and P (see the table below). These new respirators will afford a higher level of protection to a variety of workers including hospital employees needing protection from infectious tuberculosis, carpenters, painters, and farmers. NIOSH has established a three year transition period for instituting the new regulation. After July 10, 1998 all particulate respirators will have to be certified under the new criteria.

Efficiency	NaCl Test Aerosol	DOP Test Aerosol (oil resistant)	DOP Test Aerosol (very oil resistant)
95%	N95	R95	P95
99%	N99	R99	P99
100(99.97%)	N100	R100	P100

Pesticide

For the purpose of this manual, the terms "pesticide" and "pesticide chemical" are synonymous with "economic poison", as defined under the United States Department of Agriculture's (USDA) Federal Insecticide, Fungicide and Rodenticide Act (FIFRA).

Protection Factor

The overall protection afforded by a certain type of respirator as defined by the ratio of the concentration of contaminant outside a face mask or hood to that inside the mask while in a contaminated atmosphere. For example, if a half-mask respirator has a protection factor of 10, it may provide adequate protection in atmospheres where the contaminant concentration is up to 10 times the permissible exposure limit (PEL) for that specific contaminant.

Qualitative Fit Test

A test procedure to determine the effectiveness of the seal between the face mask and the wearer's face, usually performed during the fitting process.

Quantitative Fit Test

A scientifically-based test that measures numerically the extent of respirator fit and therefore can be used to assign a protection factor to a specific face-to-face piece seal.

Resistance

Opposition to the flow of air, as through a canister, cartridge or particulate filter.

Respirator

A device designed to protect the wearer from inhalation of harmful atmospheres.

Self-Contained Breathing Apparatus (SCBA)

A unit designed to provide the wearer with a respirable atmosphere independent of the ambient air. The air supplied by gas cylinder which is carried on the back of the wearer.

Supplied-Air Respirator

A hose-mask or hood type respirator where respirable air is supplied through an air hose connected to a compressed-air cylinder or air compressor.

Vapor

The gaseous state of a substance that is a solid or liquid at normal temperature and pressure.

Appendix E
Types of Respirators Used

1. Particulate Respirators – N, R, P Series

Description: Effective July 1995 new performance criteria were established for particulate respirators. The new criteria eliminate classification of particulate filters according to hazard such as "dust mist fume" and provides for three levels of filter efficiency (95%, 99%, 99.97%). These efficiencies are available in a series of filter types known as N, R, and P (see the table below). These new respirators will afford a higher level of protection to a variety of workers including hospital employees needing protection from infectious tuberculosis, carpenters, painters, and farmers. NIOSH has established a three year transition period for instituting the new regulation. After July 10, 1998 all particulate respirators will have to be certified under the new criteria.

Efficiency	NaCl Test Aerosol	DOP Test Aerosol (oil resistant)	DOP Test Aerosol (very oil resistant)
95%	N95	R95	P95
99%	N99	R99	P99
100(99.97%)	N100	R100	P100

2. Air Purifying Full Facepiece Respirators

Description: Air-purifying full facepiece respirators work on the same principal as the half-mask respirators described above. The facepiece extends around the entire face, covering the eyes, nose, chin and mouth.

Advantages: Full facepiece respirators provide a better seal and therefore, more protection than particulate respirators. They also protect the eyes and face from irritating vapors, mists, and splashed chemicals.

Limitations: Full face respirators are heavier and often less comfortable for the wearer. Full face air purifying respirators cannot be used for all types of air contaminants and are limited by the type and capacity of the filters and cartridges used. Eyeglass wearers must assure that temple bars do not interrupt the face to facepiece seal. They cannot be used in oxygen-deficient atmospheres, or in atmospheres which have high concentrations of contaminants. Breathing may become difficult because of the additional effort required to draw air through the purifying media.

Applications: Full face respirators are used where a greater degree of respiratory protection is needed or where eye and face protection is desirable.

Assigned Protection Factor = 50.

Appendix F
Information for Employees Using Respirators
When Not Required Under the Standard

Respirators are an effective method of protection against designated hazards when properly selected and worn. Respirator use is encouraged, even when exposures are below the exposure limit, to provide an additional level of comfort and protection for workers. However, if a respirator is used improperly or not kept clean, the respirator itself can become a hazard to the worker. Sometimes, workers may wear respirators to avoid exposures to hazards, even if the amount of hazardous substance does not exceed the limits set by OSHA standards. If your employer provides respirators for your voluntary use, of if you provide your own respirator, you need to take certain precautions to be sure that the respirator itself does not present a hazard.
You should do the following:

1. Read and heed all instructions provided by the manufacturer on use, maintenance, cleaning and care, and warnings regarding the respirators limitations.

2. Choose respirators certified for use to protect against the contaminant of concern. NIOSH, the National Institute for Occupational Safety and Health of the U.S. Department of Health and Human Services, certifies respirators. A label or statement of certification should appear on the respirator or respirator packaging. It will tell you what the respirator is designed for and how much it will protect you.

3. Do not wear your respirator into atmospheres containing contaminants for which your respirator is not approved to protect against. For example, a respirator designed to filter dust particles will not protect you against gases, vapors, or very small solid particles of fumes or smoke.

4. Keep track of your respirator so that you do not mistakenly use someone else's respirator.

_____	_____
Employee Name (Printed)	Respirator Type
_____	_____
Employee Signature	Work Tasks
_____	_____
Branch Chief	Date

Appendix G
Training Certification Form

_____ Employee Name (printed)

I certify that I have been trained in the use of the following respirator(s):

_____

_____

This training included the inspection procedures, fitting, maintenance and limitations of the above respirator(s). I understand how the respirator operates and provides protection. I further certify that I have heard the explanation of the unit(s) as described above and I understand the instructions relevant to use, cleaning, disinfecting and the limitations of the unit(s).

_____
Employee Signature Date

_____
Instructor Signature Date

Appendix H
SO-35

DEPARTMENT OF FOOD AND AGRICULTURE **HAZARDOUS/TOXIC SUBSTANCE EXPOSURE RECORD**

DIVISION OF: _____ **MONTH OF:** _____

INSTRUCTIONS: This form is to be completed on a monthly basis to document every exposure to a hazardous/toxic substance on the "Director's List" (Department of Industrial Relations). The supervisor is responsible for daily entries on this form and for maintaining it for one calendar year within the unit. Thereafter the supervisor is responsible for sending the form to the Health & Safety Officer in the Human Resources Branch.

EMPLOYEE NAME:
_____

CLASSIFICATION:_____

SUPERVISOR:
_____

PHONE NUMBER:
_____

SOCIAL SECURITY NO.: _____

SUPERVISOR'S PHONE NUMBER:
_____

DATE	SUBSTANCE	LOCATION	DURATION	ACTIVITY CAUSING EXPOSURE	COMMENTS

SO-35 (rev. 5/2004)

Appendix I
Program Evaluation Form

RESPIRATORY PROTECTION PROGRAM
ANNUAL EVALUATION

Branch/Site: _____ Date: _____

Address: _____

_____

Manager: _____ Evaluator: _____

Document findings and planned corrections on continuation sheets, number items and sign.

A. Program Administration	**Yes**	**No**
1. Is there a written policy which acknowledges employer responsibility for providing a safe and healthful workplace, and assigns program responsibility, accountability, and authority?		
2. Is program responsibility vested in one individual who is knowledgeable and who can coordinate all aspects of the program at the jobsite?		
3. Can feasible engineering controls or work practices eliminate the need for respirators?		
4. Are there written procedure/statements covering the various aspects of the respirator program, including:		
Designation of an administrator; Name _____		
Respirator selection;		
Purchase of NIOSH certified equipment;		
Medical aspects of respirator usage;		
Issuance of equipment;		
Fitting;		
Maintenance, storage, and repair;		
Inspection;		
Use under special condition; and		
Work area surveillance (IH Monitoring).		

B. Program Operation	**Yes**	**No**
1. Respiratory protective equipment selection:		
Are work area conditions and worker exposures properly surveyed?		
Are respirators selected on the basis of hazards to which the worker is exposed?		
Are selections made by individuals knowledgeable of proper selection procedures?		
2. Are only certified respirators purchased and used; do they provide adequate protection for the specific hazard and concentration of the contaminant?		
3. Has a medical evaluation of the prospective user been made to determine physical and psychological ability to wear the selected respiratory protective equipment?		
4. Where practical, have respirators been issued to the users for their exclusive use, and are there records covering issuance?		
5. Respiratory protective equipment fit testing:		
Are the users given the opportunity to try on several respirators to determine whether the respirator they will subsequently be wearing is the best fitting one?		
Is the fit tested at appropriate intervals?		
Are those users who require corrective lenses properly fitted?		
Is the facepiece-to face seal tested in a test atmosphere?		
Are workers prohibited from wearing respirators in contaminated work areas when they have facial hair or other characteristics which may cause face seal leakage?		
6. Respirator use in the work area:		
Are respirators being worn correctly?		
Are workers wearing respirators at all times where required?		
7.a. Maintenance of respiratory protective equipment: *Cleaning & Disinfecting*		
Are respirators in clean condition?		
Are proper methods of cleaning and disinfecting utilized?		

B. Program Operation - continued	**Yes**	**No**
7.b. Maintenance of respiratory protective equipment: *Storage*		
Are respirators stored in a manner so as to protect them from dust, sunlight, heat, excessive cold or moisture, or damaging chemicals?		
Are respirators stored properly in a storage facility so as to prevent them from deforming?		
7.c. Maintenance of respiratory protective equipment: *Inspection*		
Are respirators in a well-maintained condition?		
Are qualified individuals/users instructed in inspection techniques?		
7.d. Maintenance of respiratory protective equipment: *Repair*		
Are replacement parts available to the user?		
7.d. Maintenance of respiratory protective equipment: *Repair*		
Are replacement parts available to the user?		
8. Training:		
Are users and supervisors trained in this Program?		
Are users and supervisors trained in proper respirator use, cleaning, and inspection?		
Are users evaluated, using competency-based evaluation, before and after training?		
9. Recordkeeping:		
Are records maintained in accordance with the Program?		
Are medical records maintained by contract physician?		
Are backup records secured?		

Signature _____ Date: _____
Evaluator (Program Administrator)

Signature _____ Date: _____
Branch Chief

Appendix J
CDFA/AHFSS Respirator Fact Sheet

CDFA/AHFSS Respirator Fact Sheet
Approved Types, Cal/OSHA Regulations, and Fit-Test Protocols

The following respirator types are approved for use by AHFSS personnel:
AHFSS uses the N95, N100, half and full face tight-fitting respirators listed below. AHFSS personnel can only wear the respirators listed below if they have been medically cleared, fit tested, and trained. Most staff will be fitted/approved to use two respirators; a N95 or N100 and a Full Face APR respirator.

3M 9211 (N95)
3M 8233 (N100)

If neither of the respirators listed above meets the AHFSS criteria (TSI Portacount Fit Factor of 100) for a proper fit then that person can not wear an N95 or N100 respirator and must be fit-tested with an alternate style respirator, the AHFSS Half-Face (HF) Air Purifying Respirator (APR) respirator is listed below.

3M 6000 series (HF)

If the employee can not meet the AHFSS criteria (TSI Portacount Fit Factor of 1000) for a proper fit with the listed HF APR respirator the individual can not wear a HF APR and must be fit-tested with the next higher level of respiratory protection, the Full-Face (FF) Air Purifying Respirator (APR). The AHFSS FF APR respirators are listed below.

3M 6000 series (FF)
MSA Advantage 3000 (FF)

If the employee can not meet the AHFSS criteria (TSI Portacount Fit Factor of 2000) for a proper fit with any of the listed FF APR respirators the individual can not wear a FF APR and may be fitted and trained with the Powered Air Purifying Respirator (PAPR). The APHIS PAPR is listed below. (AHFSS staff **may** have access to APHIS PAPR)

3M Breathe Easy 10 PAPR

AHFSS respirator selection and usage guidelines are based on the following Cal/OSHA Regulation (CCR Title 8 - 5144 Respiratory Protection):

General requirements:

1. The employer shall select and provide an appropriate respirator based on the respiratory hazard(s) to which the worker is exposed and workplace and user factors that affect respirator performance and reliability.

2. The employer shall select a NIOSH-certified respirator. The respirator shall be used in compliance with the conditions of its certification.
3. The employer shall identify and evaluate the respiratory hazard(s) in the workplace; this evaluation shall include a reasonable estimate of employee exposures to respiratory hazard(s) and an identification of the contaminant's chemical state and physical form. Where the employer cannot identify or reasonably estimate the employee exposure, the employer shall consider the atmosphere to be IDLH.
4. The employer shall select respirators from a sufficient number of respirator models and sizes so that the respirator is acceptable to, and correctly fits, the user.

In any workplace where respirators are necessary to protect the health of the employee or whenever respirators are required by the employer, the employer shall establish and implement a written respiratory protection program with worksite-specific procedures. The program shall be updated as necessary to reflect those changes in workplace conditions that affect respirator use. The employer shall include in the program the following provisions, as applicable:

1. Procedures for selecting respirators for use in the workplace;
2. Medical evaluations of employees required to use respirators;
3. Fit testing procedures for tight-fitting respirators;
4. Procedures for proper use of respirators in routine and reasonably foreseeable emergency situations;
5. Procedures and schedules for cleaning, disinfecting, storing, inspecting, repairing, discarding, and otherwise maintaining respirators;
6. Procedures to ensure adequate air quality, quantity, and flow of breathing air for atmosphere-supplying respirators;
7. Training of employees in the respiratory hazards to which they are potentially exposed during routine and emergency situations;
8. Training of employees in the proper use of respirators, including putting on and removing them, any limitations on their use, and their maintenance; and
9. Procedures for regularly evaluating the effectiveness of the program.

AHFSS respirator fit test protocols are based on Cal/OSHA- Fit Testing Procedures (Appendix A of CCR Title 8 - 5144 Respiratory Protection), which are summarized below:
OSHA-Accepted Fit Test Protocols

Fit Testing Procedures--General Requirements. The employer shall conduct fit testing using the following procedures. The requirements in this appendix apply to all OSHA-accepted fit test methods, both QLFT and QNFT.

1. The test subject shall be allowed to pick the most acceptable respirator from a sufficient number of respirator models and sizes so that the respirator is acceptable to, and correctly fits, the user.
2. Prior to the selection process, the test subject shall be shown how to put on a respirator, how it should be positioned on the face, how to set strap tension and how to determine an acceptable fit. A mirror shall be available to assist the subject in evaluating the fit and positioning of the respirator. This instruction may not constitute the subject's formal training on respirator use, because it is only a review.

3. The test subject shall be informed that he/she is being asked to select the respirator that provides the most acceptable fit. Each respirator represents a different size and shape, and if fitted and used properly, will provide adequate protection.
4. The test subject shall be instructed to hold each chosen facepiece up to the face and eliminate those that obviously do not give an acceptable fit.
5. The more acceptable facepieces are noted in case the one selected proves unacceptable; the most comfortable mask is donned and worn at least five minutes to assess comfort. Assistance in assessing comfort can be given by discussing the points in the following item 6. If the test subject is not familiar with using a particular respirator, the test subject shall be directed to don the mask several times and to adjust the straps each time to become adept at setting proper tension on the straps.
6. Assessment of comfort shall include a review of the following points with the test subject and allowing the test subject adequate time to determine the comfort of the respirator.
   (a) Position of the mask on the nose
   (b) Room for eye protection
   (c) Room to talk
   (d) Position of mask on face and cheeks
7. The following criteria shall be used to help determine the adequacy of the respirator fit:
   (a) Chin properly placed;
   (b) Adequate strap tension, not overly tightened;
   (c) Fit across nose bridge;
   (d) Respirator of proper size to span distance from nose to chin;
   (e) Tendency of respirator to slip;
   (f) Self-observation in mirror to evaluate fit and respirator position.
8. The test subject shall conduct a user seal check, either the negative and positive pressure seal checks described in Appendix B-1 or those recommended by the respirator manufacturer which provide equivalent protection to the procedures in Appendix B-1. Before conducting the negative and positive pressure checks, the subject shall be told to seat the mask on the face by moving the head from side-to-side and up and down slowly while taking in a few slow deep breaths. Another facepiece shall be selected and retested if the test subject fails the user seal check tests.
9. The test shall not be conducted if there is any hair growth between the skin and the facepiece sealing surface, such as stubble beard growth, beard, mustache or sideburns which cross the respirator sealing surface. Any type of apparel which interferes with a satisfactory fit shall be altered or removed.
10. If a test subject exhibits difficulty in breathing during the tests, she or he shall be referred to a physician or other licensed health care professional, as appropriate, to determine whether the test subject can wear a respirator while performing her or his duties.
11. If the employee finds the fit of the respirator unacceptable, the test subject shall be given the opportunity to select a different respirator and to be retested.
12. Exercise regimen. Prior to the commencement of the fit test, the test subject shall be given a description of the fit test and the test subject's responsibilities during the test procedure. The description of the process shall include a description of the test exercises that the subject will be performing. The respirator to be tested shall be worn for at least 5 minutes before the start of the fit test.
13. The fit test shall be performed while the test subject is wearing any applicable safety equipment that may be worn during actual respirator use which would interfere with respirator fit.

14. Test Exercises:

The following test exercises are to be performed for all fit testing methods prescribed in this appendix. The test subject shall perform exercises, in the test environment, in the following manner:

(a) Normal breathing. In a normal standing position, without talking, the subject shall breathe normally.
(b) Deep breathing. In a normal standing position, the subject shall breathe slowly and deeply, taking caution so as not to hyperventilate.
(c) Turning head side to side. Standing in place, the subject shall slowly turn his/her head from side to side between the extreme positions on each side. The head shall be held at each extreme momentarily so the subject can inhale at each side.
(d) Moving head up and down. Standing in place, the subject shall slowly move his/her head up and down. The subject shall be instructed to inhale in the up position (i.e., when looking toward the ceiling).
(e) Talking. The subject shall talk out loud slowly and loud enough so as to be heard clearly by the test conductor. The subject can read from a prepared text such as the Rainbow Passage, count backward from 100, or recite a memorized poem or song.
(f) Grimace. The test subject shall grimace by smiling or frowning. (This applies only to QNFT testing; it is not performed for QLFT)
(g) Bending over. The test subject shall bend at the waist as if he/she were to touch his/her toes. Jogging in place shall be substituted for this exercise in those test environments such as shroud type QNFT or QLFT units that do not permit bending over at the waist.
(h) Normal breathing. Same as exercise (a).

Each test exercise shall be performed for one minute except for the grimace exercise which shall be performed for 15 seconds. The test subject shall be questioned by the test conductor regarding the comfort of the respirator upon completion of the protocol. If it has become unacceptable, another model of respirator shall be tried. The respirator shall not be adjusted once the fit test exercises begin. Any adjustment voids the test, and the fit test must be repeated.

TSI Portacount:

Ambient aerosol condensation nuclei counter (CNC) quantitative fit testing protocol. The ambient aerosol condensation nuclei counter (CNC) quantitative fit testing (Portacount TM) protocol quantitatively fit tests respirators with the use of a probe. The probed respirator is only used for quantitative fit tests. A probed respirator has a special sampling device, installed on the respirator, which allows the probe to sample the air from inside the mask. A probed respirator is required for each make, style, model, and size that the employer uses and can be obtained from the respirator manufacturer or distributor. The CNC instrument manufacturer, TSI Inc., also provides probe attachments (TSI sampling adapters) that permit fit testing in an employee's own respirator. A minimum fit factor pass level of at least 100 is necessary for a half-mask respirator and a minimum fit factor pass level of at least 500 is required for a full facepiece negative pressure respirator. The entire screening and testing procedure shall be explained to the test subject prior to the conduct of the screening test.

Portacount Fit Test Requirements:

1. Check the respirator to make sure the sampling probe and line are properly attached to the facepiece and that the respirator is fitted with a particulate filter capable of preventing significant penetration by the ambient particles used by the fit test (e.g. NIOSH 42 CFR 84 series 100, 99 or 95 particulate filter) per manufacturer's instruction.
2. Instruct the person to be tested to don the respirator for five minutes before the fit test starts. This purges the ambient particles trapped inside the respirator and permits the wearer to make certain the respirator is comfortable. This individual shall already have been trained on how to wear the respirator properly.
3. Check the following conditions for the adequacy of the respirator fit: Chin properly placed; Adequate strap tension, not overly tightened; Fit across nose bridge; Respirator of proper size to span distance from nose to chin; Tendency of the respirator to slip; Self-observation in a mirror to evaluate fit and respirator position.
4. Have the person wearing the respirator do a user seal check. If leakage is detected, determine the cause. If leakage is from a poorly fitting facepiece, try another size of the same model respirator, or another model of respirator.
5. Follow the manufacturer's instruction for operating the Portacount and proceed with the test.
6. The test subject shall be instructed to perform the exercises in section I. A. 14. of this appendix.
7. After the test exercises, the test subject shall be questioned by the test conductor regarding the comfort of the respirator upon completion of the protocol. If it has become unacceptable, another model of respirator shall be tried.

Portacount Test Instrument:

1. The Portacount will automatically stop and calculate the overall fit factor for the entire set of exercises. The overall fit factor is what counts. The Pass or Fail message will indicate whether or not the test was successful. If the test was a Pass, the fit test is over.
2. Since the pass or fail criterion of the Portacount is user programmable, the test operator shall ensure that the pass or fail criterion meet the requirements for minimum respirator performance in this Appendix.
3. A record of the test needs to be kept on file, assuming the fit test was successful. The record must contain the test subject's name; overall fit factor; make, model, style, and size of respirator used; and date tested.

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